ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

4500 SOUTH SIXTH STREET ROAD, SPRINGFIELD, ILLINOIS 62706

THOMAS V. SKINNER, DIRECTOR

217-786-6892 • FAX 217-786-6357

May 24, 2001

Eagle Zinc Company
P.O. Box 340
Hillsboro, Illinois 62049

Attention: Mr. Tom Youngless, Plant Manager

Re: LPC # 1358070001-- Montgomery County
Hillsboro/Eagle Zinc
ILD #980606941
Compliance File

Dear Mr. Youngless:

On March 29, 2001, an inspection of the above referenced site was conducted by Mr. Richard Johnson representing the Illinois Environmental Protection Agency. The purpose of this inspection was to determine the site's compliance with the Illinois Environmental Protection Act and 35 Illinois Administrative Code pursuant to Subtitle G: Land Pollution.

For your information, a copy of the inspection report is enclosed.

Should you have any questions regarding this inspection, please contact Mr. Johnson at the above number.

Sincerely,

David C. Jansen
Springfield Region Manager
Field Operations Section
Division of Land Pollution Control

DCJ/RCJ/rr(U:\RCJ\LETTERS\EagleZn401Let.wpd)

Enclosure

cc: Montgomery County Coordinated Services Office, Bill Gonet

bcc: DLPC, Division File
DLPC/FOS, Springfield Region
DLC, Greg Richardson
DRM/FSU, Rick Lanham

Narrative

LPC #1358070001 – Montgomery County
Facility Name: Hillsboro/Eagle Zinc
Date of Inspection: March 29, 2001
Prepared by: Rich Johnson, DLPC/FOS, Springfield Region

I conducted a re-inspection of Eagle Zinc on March 29, 2001. Mr. Bill Gonet and Mr. Tim Ondrey of the Montgomery County Coordinated Services' Office accompanied me. Met and interviewed during the inspection were Mr. Tom Youngless, plant manager, and Mr. Dave Faust, plant supervisor. The present inspection was done as a follow up to the one conducted May 20, 1999. An Agency letter dated June 9, 1999 was sent to Eagle Zinc with recommendations involving different wastes and materials stored around the facility.

The tour of the buildings began at a lean-to shed located south west of the office building. No containers, tanks, or potential waste materials were found in the shed. We did observe 3 empty gas cylinders.

South of the above-mentioned shed was the Electrician's Shed. As we walked through the shed, an old parts cleaner unit was observed. Nothing was in the parts cleaner. The back room of the shed contained an assortment of motors (mostly older models previously used at the facility). Mr. Youngless again said the motors would be used in the future.

South of the Electrician's Shed is the Carpenter's Shed. In the eastern room of the building was a table saw surrounded by various pieces of dimensional lumber. During the May 20, 1999-inspection about 42 5-gallon containers of paint were observed in a caged area in the west room of the building (see photograph 1). These 5-gallon containers have been removed. Mr. Youngless said the paint had been sent to Friedmans Paint and Wallpaper in Springfield, Illinois for recycling. Friedman is associated with the Agency sponsored "Partners for Waste Paint Solutions." Two receipts from Friedmans were provided (see **Attachments 1 and 2**) showing about 171 gallons of paint from Eagle Zinc were taken at Friedmans for recycling. Also, in the caged area was a 55-gallon drum of propionic acid. According to Mr. Youngless, propionic acid is used to surface treat zinc oxide materials in rubber products. The propionic acid is only occasionally used and mostly for experimental purposes. Mr. Youngless said they continue to keep the material for this purpose. The drum of polyester adhesive in the caged area has also been removed. According to Mr. Youngless, the drum and its contents were removed in a shipment taken by Safety-Kleen. **Attachment 3** of this report is a copy of a manifest that accompanied a shipment of nonhazardous waste collected and managed by Safety-Kleen. One of the items on the manifest was identified as the polyester adhesive drum.

West of the Electrician's Shed is the Automotive Shop. Inside the shed is a parts washer unit with solvent supplied by Safety-Kleen. Mr. Youngless said Safety-Kleen still comes to Eagle Zinc every 60 days or so days to replace the solvent. The parts washer was

estimated to be 24 inches by 24 inches and held about 6 inches of solvent. This was figured at about 15 gallons. Oil changes from vehicles at the shop and from machinery around the facility are accumulated in 55-gallon drums. A locked shed on the west side of the Electrician's Shed accumulates the used oil. Inside the shed were 1 full drum of used oil, a partially full 55-gallon drum with used oil, a 55-gallon drum for accumulating oily rags, and a drum for accumulating spent oil filters (see photo 2). The used oil drums were marked with the wording "Used Oil." Mr. Youngless said the automotive shop does not normally engage in changing tires or generating used or waste tires. Spent vehicle batteries from Eagle Zinc are accepted at McKay's Auto Parts in Hillsboro.

North of the Automotive Shop is the Maintenance Shop. The southern portion of the building has an assortment of metal forming machines. Included with the machines was a roller that formed metal into a circle, several small lathes, and a press. A 55-gallon drum labeled "U-7 Chemical Coolant" was previously observed in the metal fabricating area. Mr. Faust said the material had been used up as lubricant for the chop saw. A small office in the southeast region has been totally revamped. The two 5-gallon containers of "Morcoset Fire Brick Mortar" were removed and reportedly used for patching one of the furnaces' fire chambers. North of the metal fabrication is a storage and parts room. A cabinet was opened in the room and two long cardboard boxes were observed (see photo 3). In the boxes were spent fluorescent light bulbs. The boxes were both labeled "Used Mercury Containing Lamps." Mr. Youngless said the site is currently using low mercury lights and will eventually phase out all the hazardous mercury lights. **Attachment 4** is a copy of a bill of lading showing an earlier shipment of used mercury containing lamps collected by Safety-Kleen and sent to Advanced Environmental Recycling in Pennsylvania. Each of the boxes was said to hold about 25 lamps. A door off the parts room led to a second floor. More stored items were found on the second floor such as fixtures, light bulbs, old paperwork and other miscellaneous items. During the May 20, 1999 inspection 14 five-gallon containers labeled "Q-Chromastic Plastic Super-Refractory Mortar Protects Furnace Walls" were observed on the second floor. Mr. Youngless and Mr. Faust explained though the material was old, they broke it up enough to make a paste and applied it to the brick discharge wall of the furnace in Block 2. They indicated the material was not very effective. Also, on the second floor had been a couple drums of boiler chemicals. These have now been used, according to Mr. Youngless. Previous items found in a caged area have also been removed. The 4 five-gallon containers were reportedly taken to Friedman for recycling.

West of the Maintenance Shop is the Old Laboratory. An inspection of the old lab found all the previously observed containers gone. During the May 20, 1999-inspection 8 cardboard boxes with 4 feet long spent fluorescent lights were found in one of the hallways. These have been taken offsite for recycling (see Attachment 4). Setting on the floor next to the lights had been around 15 pint-size metal containers. The rusty containers sounded like they contained a liquid, and none of them had labels. Mr. Youngless said he talked to some of the old employees that had worked in the lab and found that the containers contain zinc oxide mixed with linseed oil (quality control tests for oil-based paints). The liquid contents of the containers were reportedly decanted and added to the used oil for collection by Safety-Kleen while the zinc oxide went to be zinc

feedstock. The content of a fiberboard drum was identified as carbon powder and it was used in the furnace.

From the old lab we inspected what had been the old Carbon Recovery Building. This building currently houses stacks of wood pallets. Actually the number of pallets was considerably less than observed on the previous inspection. Pallets are both used onsite and some go to a recycler. The old water-filled elevator shaft pit in the northeast corner has been filled in with concrete and the drums removed.

From the Old Carbon Recovery Building we walked to the outside bulk storage area for the zinc feedstock. As we approached the area we observed a back-hoe or drag-line emptying coal from one of the railcars. The coal from the railcar was piled on the ground near the railcar until needed for making zinc oxide. Photo 4 shows some of the zinc feedstock setting on the concrete pad.

A couple of the large piles of furnace residues west and southwest of the zinc feedstock storage area appeared smaller (see the background of photo 4). Mr. Youngless acknowledged that tons of the residues in these piles have been screened. The one pile in the southcentral/southwest region identified on the site sketch as RR1 #5 has been pretty much leveled. Another pile identified as RR1 #7 on the site sketch also appears much smaller. It should be noted that the pile of Type 2 furnace residue (identified as RR2 on the site sketch) remains the same size. This pile was found to have high levels of lead and is considered to be hazardous. There is no indication that this pile has changed in size since my previous inspection.

Northeast of the Old Carbon Recovery Building is a long building with three furnaces. The south end of the building is called Block 1 and it contains a non-operating rotary furnace. North of Block 1 is a Waelz rotary furnace in what is called Block 3. The furnace is part of a pilot project to reuse rotary oversize residue. Rotary oversize residue is generated by screening furnace residue to take out the smaller carbon material that can then be sold or reused in the current process. According to Mr. Faust, the Block 3 furnace hasn't been used since October or November of 2000. As the weather gets cold and wet, the material is too frozen to go through the screen. Further north of the Waelz furnace is another non-operable rotary furnace in an area called Block 4. All of the furnaces are on the second floor of the building.

Different piles of furnace residues were observed west and northwest of the building housing Blocks 1, 3 and 4. Mr. Youngless described two of the piles as being different sized screenings of the furnace residues. One is called the midsize fraction of the screenings, and the other is the oversize fraction. According to Mr. Youngless, the oversize fraction is good material in making roadbeds. He pointed out a concrete-like area at the edge of the oversize pile as an example of how the material would set up. Mr. Youngless said he contacted Litchfield-Hillsboro Landfill about taking the oversize fraction for internal roadbeds. He was told the landfill and Eagle Zinc would probably need the Agency's concurrence before going ahead with this proposal.

We then walked to the Bulk Storage Building in the northcentral region. Inside the building were a few piles of off specification zinc oxide and zinc skimmings. According to Mr. Youngless, businesses occasionally will want the slightly off specification zinc oxide in bulk. Other items in the building include pallets and a special type of supersack.

Zebra Operation is located in a building southeast of the Bulk Storage Building and northeast Block 4. Zinc feedstock in super bags from a sister plant is milled and then screened to obtain a certain size. Both the larger than desired screenings and the smaller than desired dust are collected and sent back to the sister company for reuse. The particles of the correct size are bagged for shipping to companies that use the material as a fungicide for mildew control on roofing products. There are two non-operating muffle furnaces in the building. During the May 20, 1999-inspection a white powder was found in metal tote box in the building. Wording on the outside of the box stated "Corrosive Solids NOS." Mr. Youngless said a sample of the material identified it as barium carbonate. He indicated it was left by one of the previous owners of the facility since Eagle Zinc hasn't any need for that type of material. It was manifested offsite as a hazardous waste (**see Attachment 5**).

South of the Zebra Operation Building is a tall, long building that contains baghouses. According, to Mr. Youngless, only one of the numerous baghouses is being operated in this portion of the building. The baghouse receives zinc oxide from the Waelz furnace. Filter bags in the baghouse would be defined as a "special waste", unless they can be certified as non-special waste pursuant to Section 22.48 of the Illinois Environmental Protection Act.

Zinc oxide product and the current lab are in a building west but connected at the south end of the Baghouse Building. The active bagging operation and baghouse associated with Block 2 is located just south of the old baghouse.

The current lab does an assortment of dry tests of the zinc oxide being produced. It occasionally uses acids and ethanol for testing. Mr. Youngless said tests on the product are done about every two hours. Most of the lab waste generated comes from cleaning off meshes with water. The meshes test the sample sizes to insure the product particles are to specification. All wastewater goes down the lab sink into a 500-gallon plastic tank. The contents of the tank are mostly water and zinc oxide (it was about a quarter full during the inspection). When the tank becomes full its contents are added to the zinc feedstock.

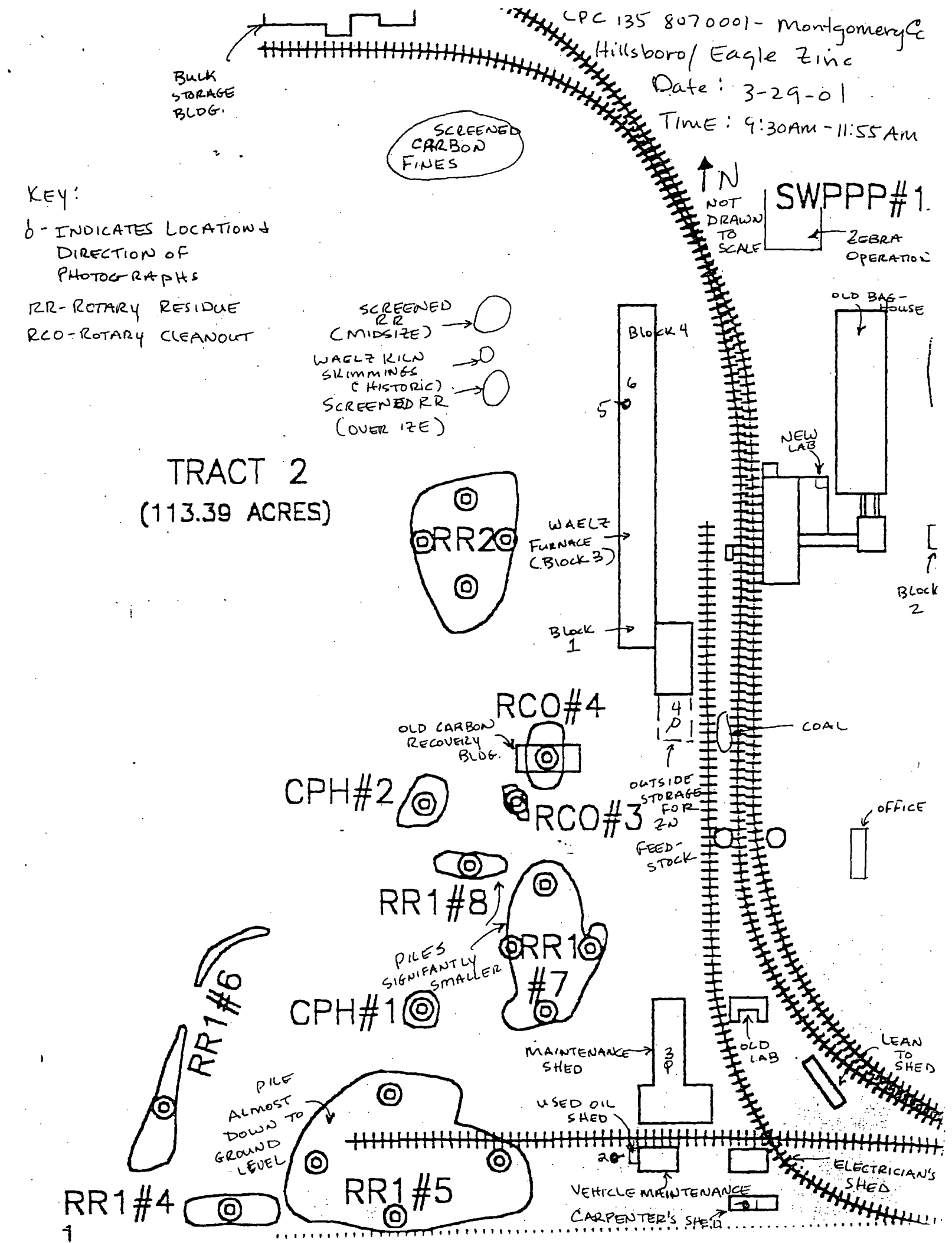
Wooden shelves containing paper bags marked with batch numbers are located near the main product storage area. Apparently, each zinc oxide batch produced is sampled and tested. Samples are held until more shelf space is required. The contents of the bags are incorporated back into the zinc feedstock. Up a ramp on the top floor of the building is a room with numerous bags of the zinc oxide product ready to be transported offsite.

We walked to Block 2 to observe the operation. Water to cool the furnace cascades down from pipes above it. The water collects in a below ground room where it is recirculated back to further cool the furnace.

Hazardous and special waste determinations have now been made of all the unidentifiable wastes found during the May 20, 1999-inspection. A letter with the results of the inspection will be sent to Mr. Youngless.

We left the site at about 11:55 a.m.

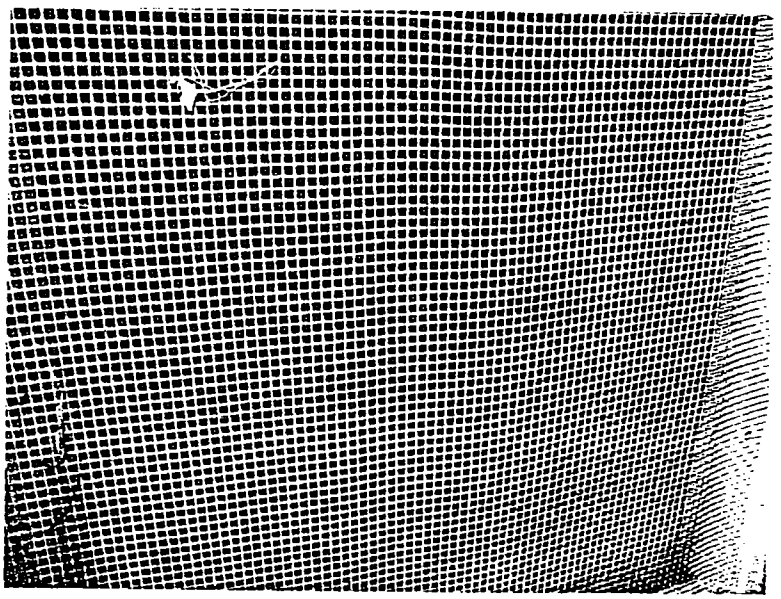
cc: DLPC/FOS, Springfield Region
DRM/FSU, Rick Lanham
DWPC/FOS, Springfield Region, John Wells
DAPC/FOS, Springfield Region, Laurie Brinkmann
DLC, Greg Richardson
Montgomery County Coordinated Services, Bill Gonet


CPC 135 8070001 - Montgomery Cc
Hillsboro / Eagle Zinc
Date: 3-29-01
Time: 9:30AM - 11:55AM
BULK STORAGE BLDG.
SCREENED CARBON FINES
KEY:
ϕ - INDICATES LOCATION & DIRECTION OF PHOTOGRAPHS
RR - ROTARY RESIDUE
RCO - ROTARY CLEANOUT
N
NOT DRAWN TO SCALE
SWPPP #1
ZEBRA OPERATION
SCREENED RR (MIDSIZE)
WAELZ KILN SKIMMINGS (HISTORIC)
SCREENED RR (OVERSIZE)
OLD BAG-HOUSE
BLOCK 4
6
5
NEW LAB
TRACT 2
(113.39 ACRES)
RR2
WAELZ FURNACE (BLOCK 3)
BLOCK 2
BLOCK 1
RCO#4
OLD CARBON RECOVERY BLDG.
4 P
COAL
CPH#2
RCO#3
OUTSIDE STORAGE FOR ZN FEED-STOCK
OFFICE
RR1#8
PILES SIGNIFANTLY SMALLER
RR1#7
RR1#6
CPH#1
MAINTENANCE SHED
3 P
OLD LAB
LEAN TO SHED
PILE ALMOST DOWN TO GROUND LEVEL
USED OIL SHED
RR1#4
RR1#5
2P
ELECTRICIAN'S SHED
VEHICLE MAINTENANCE
CARPENTER'S SHED

LPC #1358070001 – Montgomery County
Hillsboro/Eagle Zinc
FOS File

DIGITAL PHOTOGRAPH PHOTOCOPIES

DATE: March 29, 2001
TIME: 9:42 am
DIRECTION: West
PHOTO by: Richard Johnson
PHOTO FILE NAME:
1358070001~03292001-001
COMMENTS: Photo shows three containers in a locked cage at the west end of the carpenter's shop.

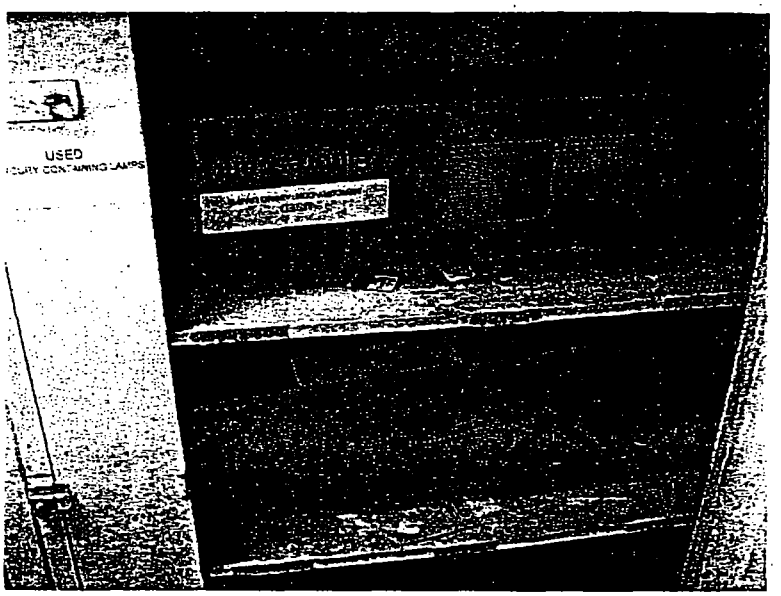


DATE: March 29, 2001
TIME: 9:45 am
DIRECTION: Northeast
PHOTO by: Richard Johnson
PHOTO FILE NAME:
1358070001~03292001-002
COMMENTS: Photo shows drums of used oil being stored in a small room off of the automotive shop.

LPC #1358070001 – Montgomery County
Hillsboro/Eagle Zinc
FOS File

DIGITAL PHOTOGRAPH PHOTOCOPIES

DATE: March 29, 2001
TIME: 10:05 am
DIRECTION: South
PHOTO by: Richard Johnson
PHOTO FILE NAME:
1358070001~03292001-003
COMMENTS: Photo shows 2 boxes of used mercury containing lamps in a room of the maintenance shop.



DATE: March 29, 2001
TIME: 10:32 am
DIRECTION: Southwest
PHOTO by: Richard Johnson
PHOTO FILE NAME:
1358070001~03292001-004
COMMENTS: Photo shows the location where zinc feedstocks are kept.

LPC #1358070001 – Montgomery County
Hillsboro/Eagle Zinc
FOS File

DIGITAL PHOTOGRAPH PHOTOCOPIES

DATE: March 29, 2001
TIME: 10:41 am
DIRECTION: Northwest
PHOTO by: Richard Johnson
PHOTO FILE NAME:
1358070001~03292001-005
COMMENTS: Photo shows piles of screened furnace residues in the northcentral region of the site.

DATE: March 29, 2001
TIME: 10:41 am
DIRECTION: Northwest
PHOTO by: Richard Johnson
PHOTO FILE NAME:
1358070001~03292001-006
COMMENTS: Photo shows piles of screened furnace residues in the northcentral region of the site.